

ARI Research Note 2000-02

Modernizing the U. S. Army Research Institute's Attitude and Opinion Survey Programs

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**TRADOC Scientific Coordination Office
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November 1999

**U.S. Army Research Institute
for the Behavioral and Social Sciences**

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DTIC QUALITY INSPECTED 4

19991119 021

**U.S. Army Research Institute
for the Behavioral and Social Sciences**

A Directorate of the U.S. Total Army Personnel Command

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Research accomplished under contract
for the Department of the Army

The Gallup Organization

Technical review by

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REPORT DOCUMENTATION PAGE

1. REPORT DATE (dd-mm-yy) November 1999		2. REPORT TYPE Final		3. DATES COVERED (from... to) Jan 99-May 99	
4. TITLE AND SUBTITLE Modernizing the U. S. Army Research Institute's Attitude and Opinion Survey Programs				5a. CONTRACT OR GRANT NUMBER DASW01-98-D-0049 (DO #3)	
				5b. PROGRAM ELEMENT NUMBER 63007	
6. AUTHOR(S) Roger Tourangeau, Darby Miller-Steiger, Michael Cohen, Steven Hanway, and Susan Conner (The Gallup Organization)				5c. PROJECT NUMBER A792	
				5d. TASK NUMBER 183	
				5e. WORK UNIT NUMBER C01	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) The Gallup Organization One Church St. Suite 900 Rockville, MD 20850				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Research Institute for the Behavioral and Social Sciences Attn: TAPC-ARI-ZM 5001 Eisenhower Avenue Alexandria, VA 22333-5600				10. MONITOR ACRONYM ARI	
				11. MONITOR REPORT NUMBER Research Note 2000-02	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT (Maximum 200 words) The aim of this project was to assess the quality of ARI's current survey programs, make recommendations for improving them, and to draft regulations that incorporated these recommendations and brought the regulations up to date. Information was gathered about ARI's current attitudinal, command climate, and occupational analysis studies by examining survey documentation and speaking with the staff who carry out the studies. Information was also collected about a number of comparable surveys done by the other services, academic survey organizations, and private firms, and the users of the ARI surveys were queried to assess their satisfaction with ARI's services. ARI was found to use sound methods, comparable to those used by other survey organizations and it achieved similar response rates, and ARI customers expressed a high level of satisfaction. Recommendations are made for continuing enhancement of ARI survey programs. (This is the detailed report of work summarized in ARI Special Report 43.)					
15. SUBJECT TERMS Surveys; Attitudes; Command Climate; Occupational Analysis					
SECURITY CLASSIFICATION OF			19. LIMITATION OF ABSTRACT Unlimited	20. NUMBER OF PAGES 62	21. RESPONSIBLE PERSON (Name and Telephone Number) John F. Hayes, DSN 680-5624
16. REPORT Unclassified	17. ABSTRACT Unclassified	18. THIS PAGE Unclassified			

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EXECUTIVE SUMMARY

Purpose

The aim of this project was to assess the quality of ARI's current survey programs, make recommendations for improving them, and to draft regulations that incorporated these recommendations and brought the regulations up to date.

Methods

We gathered information about ARI's current attitudinal, command climate, and occupational analysis studies by examining survey documentation and speaking with the staff who carry out the studies. We also gathered similar information about a number of comparable surveys done by the other services, academic survey organizations, and private firms. In addition, we identified the users of the ARI data and conducted a focus group and a small telephone study to assess their satisfaction with ARI's surveys.

Findings

We found that ARI used sound methods comparable to those used by other survey organizations and it achieved similar response rates. ARI's customers expressed a high level of satisfaction both in the focus group discussion and the more formal customer satisfaction survey. There were several areas where we recommended improvements, including steps intended to improve ARI's questionnaires and the response rates to its surveys and other steps intended to increase its use of automation. In many cases, our recommendations supported initiatives ARI had already begun.

Conclusions

We presented a number of recommendations to ARI. These included suggestions for improving its survey response rates, standardizing its pretesting procedures, adopting new data collection technologies, creating a quick turnaround capability, standardizing deliverables, and obtaining systematic customer feedback.

INTRODUCTION

In September of 1998, The Gallup Organization was awarded a Task Order Contract under a subcontract with Personnel Decisions Research Institutes (PDRI) to carry out an assessment of the Army Research Institute's (ARI) Behavioral and Social Science survey research program. This review had three major purposes. The first was to evaluate ARI's surveys by comparing them to industry benchmarks. The second was to provide the basis for recommendations about improving ARI's current practices. The final objective was to update the regulations under which ARI operates, particularly the basic regulation (AR 600-46) governing ARI's surveys; this regulation has not been overhauled in more than 20 years.

The original Task Order Request for the project called for six subtasks:

1. A review of ARI's current policies and practices for conducting its attitude and opinion and occupational surveys;
2. The identification of "best practices" used in similar surveys done by other governmental and private survey research organizations;
3. An assessment of the level of satisfaction of ARI's current customers with ARI's surveys and the reports and other products based on them;
4. A briefing of the Army's Attitude and Opinion Survey Advisory Group;
5. Preparation of a report based on the findings from the first three Tasks; and
6. Development of draft regulations to update the existing regulations, incorporate any recommended changes, and resolve other outstanding issues not addressed in the current regulations.

Gallup staff gathered detailed information about seven ARI surveys for the first of these tasks, and gathered information on 11 attitude, employee morale, and occupational analysis surveys done outside of ARI as part of the second subtask. To assess customer satisfaction, we held a focus group with five ARI customers and interviewed 31 ARI customers by telephone using a questionnaire modeled on the one Gallup uses to assess the satisfaction of its own customers. On March 9, 1999 we presented our findings to the Survey Advisory Group during a briefing at the Pentagon. This report fulfills the requirement in subtask 5 and includes a draft of the revised regulations.

The balance of this report presents a more detailed description of each of the first three of these activities. It concludes with a list of our recommendations and a discussion of the draft regulation we are proposing.

ARI'S CURRENT PRACTICES

Our first task was to determine the current practices of ARI's attitude and opinion survey programs. To accomplish this, we developed a conceptual framework that broke the process of conducting a survey into several distinct steps (from frame development to reporting), each with its own challenges and potential problems. Our plan was to gather information on how each step has been conducted on several major survey studies done at ARI. Accordingly, we identified several key ARI surveys and the researchers responsible for conducting them. We paid particular attention to any apparent challenges or difficulties in implementing the research steps.

Stages in Survey Development

For each study, we asked the lead researcher a series of general questions about organizational and administrative issues, such as the name of the study, the general purpose of the research, the study's customers, and the regulations and clearance procedures for the research. Then, we asked more detailed questions about the main steps in the survey research process. Each of these steps can affect the accuracy of the survey results. Our questions sought to uncover the methods used and the challenges faced in each step of the process—frame development, questionnaire design, sample design, data collection, data processing, and reporting.

1) Frame development:

Impact on Survey Error: A frame is an implicit or explicit list of the population from which the sample for a particular survey is drawn. Coverage errors arise if some portion of the population of interest is not included on the frame. Because of their omission from the frame, these members of the population can never be selected for the sample. If the information on the frame used for a survey is not kept up to date, these inaccuracies can also produce errors. For example, if the locating information on the frame is out of date, nonresponse can result.

Questions Asked: What is the population of interest? What is the frame? Are there any problems with the frame, such as poor locating information?

2) Questionnaire design:

Impact on Reporting Errors: Careful design of a survey instrument can reduce measurement error. Research has shown that small, apparently innocuous changes in wording of a question can lead to large changes in responses (Schuman & Presser, 1981; Sudman, Bradburn, & Schwarz, 1996). Cognitive interviews, focus groups, pre-testing, and/or expert review panels are all methods used to improve questionnaire design. Minimizing the burden or length of the survey instrument can also reduce survey error, as a long survey can discourage respondents from filling it out. The study design also affects reporting errors; for example, longitudinal surveys are prone to time-in-sample effects,

which can affect the accuracy of the answers.

Questions Asked: What types of pretesting methods are used? Are the reliability and validity of items tested? What is the length or burden of the instrument? What is the study design (cross-sectional, longitudinal, etc.)? Are there any rules about the use of open-ended items? Are standardized scales used? Are any questions from previous surveys used?

3) Sample design:

Impact on Survey Error: Several features of the sample design affect the precision of the estimates derived from the survey data. These include the overall sample size, the use of stratification (that is, the selection of separate samples within different subgroups of the population), the presence of clustering in the data, and the need to weight the data.

Questions Asked: What is the sample size? Are weights used? Is there any stratification? Clustering?

4) Data collection:

Impact on Survey Error: Data collection procedures and operations have a direct impact on survey response rates. Factors such as the mode of contact, the technology used to collect the data, follow-up strategies, and response incentives all have effects on nonresponse. For instance, respondents tend to report more socially undesirable behavior in a self-administered questionnaire than in an interviewer-administered setting (Tourangeau & Smith, 1996). The length of the data collection period can also effect nonresponse—short data collection periods may systematically exclude those who are unavailable during the survey period. Closely related to this is the extent of follow up efforts. Research has shown that multiple mailings of a questionnaire can increase response rates significantly (Heberlein & Baumgartner, 1978).

Questions Asked: What was the mode of data collection (self-administered/telephone/in-person, etc.)? What was the length of the data collection period? Was any form of prenotification used? What were follow-up efforts made? What was the expected response rate? What was the actual response rate?

5) Data processing:

Impact on Survey Error: Editing, cleaning, weighting and imputation are data quality improvement tools by which erroneous, highly suspect, or missing data are found and, if necessary, corrected. Such data processing steps provide more detailed information about the quality of the survey, provide basic data for the improvement of the survey, and tidy up the data so further processing and analysis can be done. Editing should not change survey results in an unpredictable manner.

Questions Asked: What is the format of the data file? What cleaning, editing, imputation, and weighting methods are used, if any? Are open-ended items coded?

6) Reporting:

Impact on Survey Error: The final product of most surveys is a set of statistics derived from the data at hand, often summarized as a report. Generally, the reporting process does not introduce new errors into the survey results, but should (to the extent possible) document the impact of errors from earlier steps in the process of conducting the survey.

Questions Asked: What kinds of reports are generated? What kinds of statistical analyses are performed?

Findings

The typical ARI survey is a self-administered questionnaire, usually done on paper. ARI is increasingly exploring methods of electronic data collection on surveys such as the Command Climate Survey and Occupational Analysis. Currently, ARI does not conduct any research with the help of an interviewer, such as telephone interviews or in-person surveys. Instead, surveys are either mailed directly to the respondent, or distributed through an installation or commander. Average response rates for ARI are about 50%, which is more or less consistent with the rates we observed in our survey of the industry, particularly on mail surveys (see also Brick, Cantor, Kerwin, Giambo, and Singer, 1997).

We will now describe the findings from interviews with the lead researchers based on these six areas of survey research. We grouped the seven ARI surveys we examined into three categories: 1) continuing surveys, which included attitude surveys done on a regular basis; 2) one-time attitude surveys, which are special surveys carried out as issues arise; and 3) occupational analysis studies, which are special class of surveys conducted by ARI to gather information about the specific tasks associated with particular job categories.

Continuing Surveys

Gallup examined three continuing surveys—that is, surveys done by ARI on a fairly regular basis. These include the Sample Survey of Military Personnel, the Survey of Officer Careers, and the Command Climate Survey.

The Sample Survey of Military Personnel (SSMP) is an Army-wide survey conducted twice a year. It usually addresses about 10 to 20 topics that are important to the Army, soldiers, and their families and collects trend data on a number of issues. It takes about 40 to 45 minutes to complete the questionnaire, which is usually about 20 pages long. Most of the questions are not new, but new items that are included do go through pretesting to make sure they are written properly. The sample for each SSMP is stratified by rank and geographic location. Each sample

covers the entire Army and includes about 10% of all officers, and 2-3% of enlisted personnel. Paper, scannable questionnaires are sent out to the installations, which select the samples themselves (using the last digit of the soldiers' Social Security numbers). ARI does not track who has been sampled and has no direct contact with respondents. As a result, replacement mailings are not sent. For soldiers in Europe and Korea, ARI draws the sample based on the Army Officer and Enlisted Master Files and mails questionnaires and reminder postcards directly to the sample members. This file is not always kept up to date, however, and some questionnaires never reach the intended destination. The turnaround time on this survey is usually about 12-13 months. Installations bundle surveys to mail back to ARI, which can slow down returns. Response rates are generally around 50%, but they are difficult to measure because ARI never knows exactly how many surveys were mailed. The data are weighted up to Army strength for each individual rank, location, and gender. Short reports are generated for each topic area, and the relevant data may be sent to each sponsor.

The Survey on Officer Careers (SOC) provides data on the values, attitudes, and career experiences of Army officers. The data are used to understand what influences the career decisions of officers. The survey includes a cross-sectional sample (that is sent a questionnaire just once) as well as a longitudinal sample that provides data on the Army experience over time. The SOC questionnaire takes about 40 to 45 minutes to fill out. It is mailed to sample members; in addition, a follow-up postcard is mailed approximately two weeks after the questionnaire. Most of the questions come from the longitudinal survey, but there are usually about 3 pages of new items that are pretested; focus groups are being done now to help develop the SOC 2000 questionnaire. The longitudinal sample suffers from attrition and now includes about 3,400 officers. The cross-sectional sample includes 7,500. The cross-sectional sample includes all African-American officers as well as all white female officers; the remainder of the cross-sectional sample stratified by rank, race, source of commission, and gender. The scannable questionnaires are mailed out directly to the officers using the Officer Master File, but this file is not always updated with home addresses. Response rates are generally around 50%.

The Command Climate Survey helps commanders monitor the morale of their units annually. All members of the unit are asked to fill out the survey. It takes about 6 to 10 minutes to complete the questionnaire. This is a completely automated survey from questionnaire design to administration to analysis and is administered at the unit level without any direct involvement from ARI. The survey can also be done on paper if the unit is not automated. The commanders have the opportunity to add their own questions to the questionnaire; however, there is no oversight to make sure these questions have been written in a unbiased way. Commanders can choose from seven Likert-type scales, and they can write up to seven closed-ended and three open-ended questions. (Closed-ended questions offer explicit response categories; open-ended questions allow respondents to generate their own answer.) These surveys are a census of all soldiers in the unit and it is mandatory that soldiers complete the questionnaire. Data collection usually only lasts a few days, since the commander can set up a time when the survey is available. Response rates are not known, since all data is kept at the unit level.

One-Time Attitude Surveys

Gallup also reviewed three "special" surveys conducted by ARI researchers, including the Survey of Army Families, the Officer Evaluation Report Survey, and the Survey of New Recruit Values.

The Survey of Army Families gathers information on the attitudes and opinions of civilian spouses of soldiers on a range of issues such as family support services, deployments and family separations, housing, and other issues. It has been conducted three times so far, in 1987, 1991, and 1995, and may be conducted again next year. One challenge for this survey is that it is difficult to get addresses for spouses. The next round will test using the Defense Enrollment Eligibility Registration System (DEERS) to get spousal addresses. The sample size in 1995 was 20,000, with supplemental oversamples of male spouses and spouses in Europe, pushing the sample size up to 33,000. The questionnaire is generally 20-24 pages long and includes items from previous iterations of the survey as well as new items, which are pretested. The scannable survey is mailed directly to home addresses when they are available, and otherwise are mailed to the unit address of the soldier. The 2000 survey may use prenotification (in which members of the sample receive an advance letter describing the survey); in addition, it may include a reminder notice to prod sample members to complete the survey. The response rate in 1995 was 45%. Data are weighted by rank and geographic location of soldier.

The Survey of New Recruit Values is a new survey that is establishing a database of information on values of new recruits as they begin their Initial Entry Training. Many of the items were borrowed from other surveys and from the values literature. There are also vignettes on the survey to try to gauge how new recruits would respond to various value-driven situations. The questionnaire is administered in a group setting as part of the recruit's in-processing, thus there is no response rate issue involved.

The Officer Evaluation Report Survey (OER) assesses officers' attitudes towards specific procedures being considered for the new OER. Most of the questions have been used in other surveys. When the issues have not changed, the survey might include questions from as many as 10 to 15 years prior. The questionnaire takes about 15 to 20 minutes to fill out, and, like the SOC questionnaire, is mailed directly to the officer's home address from the Officer Master File. The data collection period for this survey is relatively short, lasting only 4-5 weeks, but can go longer depending on the customer's needs. The response rate (50%) was lower than the rate expected (65%), given the topic and the audience. Officers may have believed that the decisions were already made and their input would be ignored.

Occupational Analysis Surveys

The purpose of Occupational Analysis research is to provide customers rapid, clear information to ensure that the right soldiers, with the appropriate skills, are available to meet Army-wide requirements. These surveys are fully automated. Disks are mailed either in bulk or directly to the individual, and the disk contains the electronic questionnaire. The data collection

period is lengthened by the use of bulk mail to distribute the disks. There are tracking numbers on the diskettes so that follow-up efforts can be made if response rates are low. The questionnaires take about 20-30 minutes to complete. The items about the tasks that make up a soldier's job, and the same scales (which assess the frequency that tasks are performed in doing a given job) are used across all Military Occupational Specialties (MOS). If the MOS includes more than 1,000 people, a sample is drawn, stratified on skill level. If the MOS includes fewer than 1,000, all of them are included in the sample. Response rates are generally 45-55%.

Appendix A to the report presents more detailed information about each of these ARI surveys.

BEST PRACTICES IN THE SURVEY INDUSTRY

Our second task was to gather similar information about attitude and opinion surveys done by private and government organizations outside of ARI. In consultation with ARI, Gallup identified 11 surveys and obtained information about their practices for questionnaire design and construction, their clearance procedures, as well as their sampling methods, data collection, response rates, data processing, data analysis, and reporting. For each survey we investigated, we contacted the survey's research director or project director and administered a semi-structured interview. Appendix B contains more detailed information about each survey. The key findings of Gallup's survey of the field mostly involved questionnaire development, response rates and coverage (the ability to obtain opinions from all members of the target population), the use of computer technology, and the mode of survey data collection.

The surveys that were selected for investigation represent a variety of research methods and objectives. Gallup looked at the General Social Survey conducted by the National Opinion Research Center (NORC) and the National Election Studies conducted at the University of Michigan as "top of the line" attitude studies. These studies are long-standing, well-funded, and highly respected within the survey community. Next, as a comparison to the occupational analysis ARI conducts, Gallup looked at occupational analyses conducted by PDRI. Gallup also investigated the research practices within the U.S. Department of Defense. We collected information on the Air Force Personnel Survey Program, the Navy-Wide Personnel Survey, and the Youth Attitude Tracking Survey. Two national polls were included, the Gallup Poll and Harris Poll, because of their quick turnaround and tight timelines. Finally, two organizational climate studies were included, the Gallup Workplace Audit and the Organizational Climate in Federal Statistical Agencies conducted at the University of Maryland. These studies have purposes similar to the Army Command Climate surveys.

Questionnaire Design

If a questionnaire fails to accurately capture what it is intended to measure, all of the efforts made in sampling, data collection, and analysis are wasted. As a result, most survey organizations conduct some form of pretesting as part of the questionnaire development process to determine the effectiveness of a particular question or set of questions. Gallup found pretesting to be a common practice in the survey organizations we examined, except where quick turnaround is required. Pretesting in these organizations was done using focus groups, cognitive laboratories, small pilot studies, or add-on to omnibus studies.

Another step that organizations have taken to assess the validity and reliability of items is to compare them with external records or aggregate benchmarks. The inclusion of questions from previous surveys is another common practice in the survey organizations we examined. Using questions from other surveys allows for comparability with the past data and gives the researcher questions that have been "battle-tested". Several of the surveys used standardized scales at times to provide comparability over time within surveys; the use of scales also gives respondents practice in answering these items, which reduces burden. Standardized scales also lend themselves to combining items and constructing indices when conducting analyses.

While the input is often informal, most of the studies Gallup investigated invite customer input at the questionnaire design stage. Suggestion boxes, surveys, and formal meetings are all methods used to include customers. The Youth Attitude Tracking Survey, which meets with members of each branch of the military when constructing its questionnaire, is a good example of a survey that involves customers in the design of the research instrument. Customer input at the design stage can improve the content and utility of a survey and help the researcher set priorities for areas of investigation.

Response Rates and Coverage

Omissions due to nonresponse and coverage problems can interfere with attempts to obtain representative samples. Every sample that is drawn for use in a survey must come from a list, or sampling frame, of some kind. Ideally, these lists would contain the names of every person that is a member of the target population group. However, these lists often omit members of the population or contain incorrect information, producing coverage errors.

Our investigation of the field found such frame problems to be very common. A major reason is that, in both organizations and households, people tend to be mobile. This is especially true in the Department of Defense. The best way to reduce the resulting problems in locating members of the sample is to keep up-to-date records of the location of personnel. Within organizations, payroll records are a good source of up-to-date information, as employees are highly motivated to keep them current.

Coverage can also be related to the choice of mode. Telephone surveys fail to include persons without telephones and likewise e-mail surveys omit persons who do not have access to e-mail. A common practice in the design of organizational surveys is to conduct analyses to determine the level of coverage a particular mode will provide. Allowing respondents to participate by more than one method is another way that researchers can reduce coverage error. However, if multiple modes are employed, this may introduce differences due to the mode of interview; these mode effects may reflect differences in formatting, communication pathway (aural vs. visual), and perceived confidentiality. Establishing linking rules that systematically include those who otherwise would not be captured by a particular mode is another strategy for coping with coverage problems.

The omission of sample members through nonresponse is another common concern. Researchers seek to control the impact of nonresponse on the accuracy of survey estimates by making sure that response rates are as high as possible. However, response rates appear to be declining throughout the survey research industry (see, for example, Brick et al., 1997). Survey research organizations may seek to counteract this tendency by improving their efforts at persuasion (for example, by sending prenotification letters and offering incentives for participation) and by making more contact attempts. Follow-up efforts, such as reminder post-cards, second mailings of questionnaires, and increased call attempts in interviewer-administered modes have been widely adopted to combat nonresponse. In organizational settings, distribution of the questionnaire by an immediate supervisor often yields high response rates, but may affect

how people answer the questions, especially any sensitive items. Lengthening the field period to give people more opportunity to respond is another tactic that can improve response rates.

Mode of Data Collection

The choice of mode of data collection can affect costs, coverage and response rates, timeliness, and the answers respondents give. Personal interviews tend to produce the highest response rates (as in the General Social Survey and the National Election Studies). However, the cost of face-to-face interviewing can be prohibitive. Mail and telephone surveys tend to yield lower response rates than those obtained in personal interviews, but are often used because they are much more affordable. Some of the modes recently adopted by survey organizations include touch-tone data entry and voice recognition which allow a person to respond by phone without a live interviewer, and e-mail, Web, and disk-by-mail surveys, which allow respondents to answer at their computer. These modes are mostly used in organizational settings where computers are prevalent. The response rates tend to vary with the effort by organizations to get people to respond. Mixed mode and multiple mode surveys are common when interviewing employee populations, but systematic differences by mode in the answers are sometimes found.

Personal interviews and mail surveys tend to require longer field periods than telephone or e-mail surveys. Generally, it takes longer to contact the sample member in person or by mail than by telephone or e-mail. Telephone interviewing also offers the advantage of central supervision of interviewers as compared to the supervision available in a face-to-face survey. Telephone interviewers can be randomly monitored without their knowledge whereas field interviewers are aware when their supervisor is present and may modify their behavior. When sensitive data are to be collected, self-administered modes are usually preferred to modes in which interviewers administer the questions since self-administration has been shown to increase respondent candor.

Computer-assisted modes of data collection offer some advantages over paper-and-pencil methods and have been adopted for most of the non-ARI surveys we investigated. In administering surveys, computer assistance ensures that complex skip patterns are followed exactly and that question options are rotated appropriately; in addition, it allows the length of time spent answering each item to be measured. After the data have been collected, computerization reduces the time and expense of coding the data and processing them to compile a usable data set. Even when mail questionnaires were used in the surveys we examined, they tended to use scannable questionnaires to speed data entry and processing.

Summary

Appendix B presents additional details on the 11 non-ARI surveys we reviewed. Our survey of the field found that pretesting the questions is a common practice when designing surveys. Customer input is also commonly invited by organizations as they design questionnaires. ARI obtains response rates that are comparable to other organizations that use similar modes of data collection, but ARI may be lagging somewhat in the adoption of computer-

assisted data collection technologies. Although mail and telephone surveys predominated in our sample, e-mail, Web, and automated telephone surveys are becoming more common, especially in organizational settings, where multiple modes are often used to collect data.

CUSTOMER SATISFACTION

Gallup's third task was to assess customer satisfaction with ARI's programs and services. This effort was the first time ARI had systematically interviewed its customer base to determine the extent that current programs were meeting their needs. Gallup compiled both qualitative and quantitative data from a list of customers created for this project.

ARI's Customers

A current list of ARI customers did not exist at the time of the study. Gallup interviewed key ARI survey staff to compile a list of customers. In addition, Gallup staff contacted each customer individually to verify their relation to ARI and to ask them to offer names of other ARI customers. The final list totaled 39 customers from a wide range of command, personnel, and education departments within the United States Army. To protect the confidentiality of the respondents, Gallup cannot list the names of those who took part in the study. However, a partial list of their agencies is provided below:

- Army Community and Family Support Center
- Army Safety Center
- Commanders of company-sized units
- Office of the Deputy Chief of Staff for Personnel (DCSPER)
- Secretary of the Army
- US Army Training and Doctrine Command (TRADOC)
- United States Military Academy

Eliciting Feedback

We used the customer list to recruit individuals to participate in the qualitative and quantitative research efforts. We organized a focus group of five customers held at an independent research facility in Alexandria, Virginia. The goal of the focus group was to identify the issues and concerns voiced by customers as they related their experiences with ARI. Questions posed to the participants were intentionally open-ended, to allow customers to talk freely about their working relationship with ARI programs and staff. The discussion was audio-taped to assist the writing of the report summarizing the discussion.

Following the qualitative session, Gallup collected survey data by telephone with 31 of the remaining 34 ARI customers. The interviewers who called ARI's clients were Gallup's executive interviewers, a special group of professionals who are particularly experienced in surveying top-level managers in the public and private sector.

The instrument was based upon Gallup's own standard survey for assessing the satisfaction of its research customers. Gallup researchers get quarterly ratings on how satisfied their customers are with their work and the company's work as a whole. The questionnaire focuses on both *general* satisfaction (e.g., likelihood of recommending the product or service to another

potential customer, overall value) as well as *specific factors* leading to satisfaction (e.g. responsiveness to customer requests, ability to uncover insights).

The standard Gallup Researcher's Survey was modified to cover specific ARI programs and services, as well to take advantage of knowledge gained from the focus group. For example, an issue that was raised in the focus group was a question of how customers rated different components of ARI compared to other organizations. As a result, particular attention was paid to the questions on ARI's general reputation and compared to other research organizations with which they may have worked.

Focus Group Results

Three out of five of the respondents were almost exclusively current ARI customers of the SSMP. One respondent reported use of a Command Climate survey. Other interactions with ARI included reviews of questions for unit command surveys, need assessments, and surveys of customer satisfaction with Post Exchange facilities. In addition to ARI reports, all respondents but one used data from other sources, such as Defense Manpower Data Center (DMDC) population statistics and the Officer Master File. Cost and expertise were cited as the two main factors motivating the decision to use ARI or a private contractor. More often than not, ARI was seen as more cost-effective than an outside contractor but, in some cases, was not seen as a good fit for a particular study. Size of the survey was also seen as a factor, with customers preferring ARI to handle large-scale projects.

The focus group respondents said they want ARI to be responsive to their current issues and needs. When customers want to have specific topics covered, they must submit a justification form to ARI. Clients expect the analyses to be accurate and communicated in a way that can be easily understood. In addition, they would like to see the analyses compared to other sources over time, placing the results in the larger context. ARI should be proactive in handling problems with its clients, such as asking them if they can afford to deal with negative responses to proposed questions. Electronic report distribution was seen as very desirable, and ARI was encouraged to widely publicize the location of the files. In general, ARI's analyses were comprehensive and clear; its reports were not cluttered with excessive technical detail. ARI's presentations clarified the material in the reports very well.

Focusing on customer satisfaction, we asked the participants to identify the most important components of the service they receive from ARI. The focus group respondents mentioned many of the same components assessed in the standard Gallup survey of its customers described earlier. The following list of issues related to customer satisfaction emerged from the focus group:

- Questionnaire design;
- Responsiveness;
- Availability of ARI staff;
- Attitude of the staff;
- Overall quality of staff ;

- Quality of the analysis;
- Communicating analysis effectively;
- Meeting their needs;
- Timeliness.

Respondents said there was not a standard mechanism in place for them to provide ARI feedback. However, feedback was given throughout the planning and implementation of the study. Overall feedback was usually given at the final briefing face-to-face.

Customer Survey Results

In examining the survey results, Gallup first computed overall mean scores for each question. ARI scored very well on both overall and specific measures of customer satisfaction; the mean scores did not vary markedly across the questions. To evaluate specific areas of strength, we analyzed "top box" scores—the proportion of customers giving ARI the best rating available on a particular item. Most of the questions employed a five-point scale, with "very satisfied" as the highest response category.

To assist in understanding the results from the 20 satisfaction items in the questionnaire, it is useful to talk about general themes in the data. We conducted a factor analysis to help organize and simplify the analysis. Factor analyses are often useful in finding common themes in data, providing a framework for action as well as interpretation. Because of the small sample size in the present case, the factors that emerged should be seen as tentative rather than definitive. Nonetheless, the results seemed quite interpretable, indicating that the satisfaction items fell into three main groups:

- Front-end items—items on the services ARI provides to its clients *prior* to fielding the survey;
- Back-end items—questions on services ARI provides *after* the data are collected;
- Relationship items—questions on how ARI interacts with its clients.

Because ARI's scores were relatively high on all 20 items, we made an arbitrary distinction between top box scores that were equal to or above 60% and those scores that were below 60%. The former are described as ARI's "best" strengths, while those below the line are pictured as "good" scores.

ARI's highest scores came in the Relationship category. Seventy-seven percent of customers interviewed said they were very satisfied with ARI's ability to work on a friendly and cooperative basis, while 65% were also very satisfied with ARI's overall responsiveness to client needs. Contributing to these overall ratings are the outstanding scores that individual researchers at ARI receive from their clients. Again, 77% of customers said they were very satisfied with the quality of service they received from their ARI researcher. These results should be underscored. Service organizations do not necessarily produce tangible products for their clients very often. Therefore it is crucial for research organizations, like ARI, to maintain strong client relations. It appears that ARI has excelled in this area.

ARI's top box scores were also very good on front-end issues, such as sampling procedures and survey instrument development (62%). On the back-end, ARI scored particularly well on the accuracy of cross-tabulations (67%), digging through the data to uncover insights (60%), and the in-person presentation of the data by staff (60%). One area where ARI could improve is the overall appearance of report documents, which garnered a relatively low top box score of 50%.

On the overall satisfaction measures, ARI again gets high ratings from its clients. Sixty-eight percent of ARI's customers gave a Top Box score for the value of the products and services they received. Almost two-thirds (65%) of ARI's customers said they were "very satisfied" compared to 39% for the same question when asked of organizations *other than* ARI that do similar work. Moreover, seventy-one percent said they would recommend ARI to a colleague.

CONCLUSIONS AND RECOMMENDATIONS

Overall Performance

Our review indicates that ARI is doing a good job. It carries out surveys at a relatively low cost, uses methodologically sound procedures, and achieves reasonably high response rates. It has moved with the times and is increasingly relying on computer-assisted data collection. ARI's customers at a wide range of agencies find the data useful and are highly satisfied with ARI's work. For example, nearly two-thirds (65%) of the respondents in the customer satisfaction survey we conducted said they were very satisfied with ARI's overall performance. ARI's surveys exhibit the same sorts of problems (such as response rate and coverage problems) as the benchmark surveys we examined.

Based on our review of ARI's current practices, our customer satisfaction survey, and our benchmarking study of comparable surveys done by other organizations, we present recommendations in six areas—response rates, pretesting, new survey technologies, timeliness, deliverables, and customer feedback.

Recommendation 1: Response Rates

It is not entirely clear what the appropriate benchmark is for evaluating the response rates obtained in ARI's surveys. On the one hand, ARI's response rates are quite high given the basic method of contact (mail) and the minimal follow-up effort in several of the surveys. The literature on mail surveys is very clear about the importance of follow-up efforts—such as reminder postcards and replacement questionnaires—in achieving high response rates (e.g., Heberlein & Baumgartner, 1978). In addition, the response rates at ARI are generally in line with those achieved by the benchmark surveys we examined. On the other hand, the response rates are somewhat lower than might be expected given the "captive" population that ARI generally surveys. Further, one unexpected finding from our review of ARI's surveys is that a substantial component of the nonresponse in these surveys results from the failure to contact the sample members rather than their unwillingness to take part once ARI has reached them. This reflects the reliance on questionnaires mailed to the sample member's unit address; unit address information is, apparently, sometimes inaccurate.

We recommend several steps to address these concerns about response rates. First, we recommend that ARI undertake studies to identify the correlates of nonresponse and to examine in more detail the impact of incorrect locating information on the Army Enlisted Master Files. (This is the frame used for several ARI studies.) The study on nonresponse might involve comparing response rates for officers vs. enlisted personnel, for soldiers stationed on the continental U.S. vs. those stationed elsewhere, as well as examining differences in response rates by rank, education, type of command, and length of service. The purpose of identifying these correlates of nonresponse is to develop hypotheses about steps to improve the response rates. For example, the results of an analysis of nonresponse might suggest tailoring a cover letter to persuade specific subgroups of the importance of their participation.

The study of the bias from out-of-date locating information on the Army Enlisted Master Files would help determine whether it is worth the cost to try to improve the frame or to move to a different method of data collection. These costs are likely to be high and would not be justified unless the bias resulting from the omission of those with poor address information is substantial. It is, therefore, useful to estimate the magnitude of the bias by comparing the characteristics of a small sample of these nonrespondents with a sample of soldiers whose unit address information is accurate.

The following additional recommendations are intended to increase response rates. We believe that ARI is likely to continue to use mail questionnaires as its main method of data collection for the foreseeable future. This methodology has proved to be a very cost-effective means for obtaining information. Several steps may help improve response rates. We encourage ARI to experiment to find the best combination of changes to improve response rates. These changes might include:

- Sending a prenotification letter to sample members;
- Developing more "respondent-friendly" questionnaires (that is, questionnaires that are easier to understand and complete);
- Improving the cover letter included with the questionnaire;
- Providing some sort of incentive with the questionnaire (although a monetary incentive may be inappropriate in this context, a summary of highlights of prior findings might boost response rates);
- Adding such forms of follow-up as replacement questionnaires or repeated reminder postcards.

In the past, ARI has mailed questionnaires with a preassigned id number, but the questionnaire itself has been anonymous. The anonymity of the questionnaires has prevented any follow-up efforts directed solely at nonrespondents (since ARI cannot track who has responded). It seems likely, however, that the preassignment of an id number to the questionnaire has compromised the perception of anonymity. We think it is important that most ARI surveys remain anonymous (to encourage honest answers), so that we recommend eliminating the preassigned id numbers. We also believe that some minimal follow-up efforts are likely to yield increased response rates. Respondents could be asked to return a card separate from the questionnaire itself in which they identify themselves and indicate that they have responded. This would allow reminder postcards and replacement questionnaires to be sent only to the initial nonrespondents, without compromising anonymity. Or appropriately written reminder postcards could be sent to all sample members. Whatever form it takes, some form of follow-up is likely to be needed to improve response rates.

Recommendation 2: Pretesting

We have already mentioned the importance of questionnaire design in our previous recommendation. Currently, there does not seem to be a general policy toward pretesting at ARI or a standardized procedure for testing and evaluating new survey items. As a result, items that

have not been pretested are often included in ARI surveys. In addition, many items that are routinely included in ARI's recurrent surveys are probably due for reevaluation. For example, many of the questionnaires we reviewed include items that use a check-all-that-apply format; such items have characteristic problems, often leading to underreporting (Rasinski, Mingay, & Bradburn, 1994).

Based on our assessment of ARI questionnaires, we recommend that ARI improve and standardize its pretesting procedures. More specifically, we recommend that new items undergo cognitive testing with nine or ten respondents. Similarly, we recommend that small-scale usability testing be done on automated questionnaires. Finally, items that have been used in the past should be subjected to periodic reevaluation via cognitive interviewing or reviews by expert panels to ensure they are still appropriately measuring the variable of interest. When questionnaires are being developed on new topics, these pretesting procedures should be supplemented with focus groups or ethnographic interviews to develop an understanding of how members of the target population think and talk about the subject under investigation. Expert review panels are another low-cost method for improving questionnaires and might be adopted as part of the standard procedure for developing new items or new questionnaires.

Recommendation 3: New Survey Technologies

ARI has already begun to incorporate new data collection technologies—such as disk-by-mail (used in the occupational analysis surveys)—in its data collection efforts. We offer several recommendations for accelerating the adoption of these new tools.

First, we recommend ARI adopt some of the newest data collection tools, such as Web surveys, e-mail, and interactive voice recognition (in which digitized recordings of the questions are administered by telephone and the respondent answers questions by pressing keys on the keypad of a touchtone phone). Several of these data collection methods may be particularly well-suited for collecting data from subpopulations (such as officers) with ready access to computers or telephones. We note, however, that the transition to these new modes of data collection may require a substantial testing effort to determine whether the mode itself alters the answers to the questions. Second, we recommend that ARI investigate the use of more sophisticated scanning equipment. Currently, ARI's mail surveys require respondents to indicate their answers by filling in the appropriate bubbles. More sophisticated scanning equipment would permit greater flexibility in the method of responding; for example, some scanners can recognize characters. Although the new scanning technologies are expensive, prices are likely to fall. Finally, we recommend that ARI continue to adopt technologies that permit the automation of other survey operations, such as the generation of codebooks or standardized reports.

Recommendation 4: Timeliness

One of the major challenges that ARI faces is to provide timely data to help settle emerging policy issues. Unfortunately, several obstacles may prevent ARI from getting results quickly enough to influence the decisions that need to be made. For example, the mail methods ARI

typically employs do not always permit fast turnaround. (In addition, when clearance from the Office of Management and Budget or DOD is needed, data collection may be delayed for as long as a year.) These delays may not affect the usefulness of the results from ARI's continuing studies, but they can reduce the impact of the findings on new or pressing issues.

To address this concern, we recommend that ARI explore methods to create a fast turnaround capability. One method might be to recruit a master sample including 5,000 to 10,000 cases at the beginning of each year. A few basic pieces of information would be collected from the members of this sample, most crucially, up-to-date telephone numbers and mailing and e-mail addresses. Then, as issues arose that demanded fast returns, subsamples of the master sample could be selected and interviewed by telephone (or in some cases via e-mail or mail).

Of all our recommendations, this one is likely to involve the most cost. The largest costs would be in developing and maintaining an up-to-date list. Thus, the need for timely survey information must be weighed against the likely cost of creating a fast turnaround capability.

Recommendation 5: Deliverables

Like many survey organizations, ARI tailors its products to the customers. One outcome of this practice, however, is that there is no standard documentation available for each ARI survey, covering the basic methodology it employed, the response rates it achieved, and other standard topics. We recommend that a minimal methodology report be routinely produced for each ARI study. This standard report should cover such basic issues as the sampling frame for the study, the sample design, the questionnaire used, the method of data collection and field period, the response rate, and any special procedures used in developing survey estimates (such as weights or imputation of missing values).

ARI is in the process of archiving many of its existing data sets. Our recommendation for producing standard documentation complements this ongoing effort.

Recommendation 6: Customer Feedback

Although ARI's customers are currently very satisfied with ARI's surveys, there are no formal procedures in place for gathering customer feedback on a systematic basis. Our final recommendation is that ARI establish some mechanism for obtaining regular feedback from its customers. This might take any of several forms. For example, some organizations have set up advisory panels that include customers. Others conduct formal customer satisfaction surveys, like the one we used in this project, on a routine basis. Still others conduct periodic focus groups with customers. Given the importance of customer input during both the design and analysis of surveys, we think it is particularly important for ARI's survey units to understand how their customers view them.

REVISED REGULATION

Our final task was to review the existing Army policies and regulations pertaining to the attitude and opinion survey programs, and to prepare drafts of updates to those policies and regulations. The attitude and opinion survey programs is described in Army Regulation 600-46. This regulation was originally published in November of 1978, with an interim change implemented in April of 1983. Gallup reviewed AR 600-46 and additional supporting regulations, policies and documents. Recommendations for changes to AR 600-46 and other documents are contained in this section and Appendix C to this report. These final draft regulations and policies reflect ARI's comments on the draft recommendations submitted by Gallup.

Review of Regulations, Policies and Documents

Gallup staff interviewed the Chief Army Personnel Survey Officer to compile a list of applicable regulations, policies and documents. Additional documents were identified as the review process continued. The list of documents reviewed is provided below:

- DOD 1100.13 Surveys of DOD Personnel
- AR 11-2 Management Control
- AR 25-55 The Department of the Army Freedom of Information Act Program
- AR 25-400-2 The Modern Army Record Keeping System (MARKS)
- AR 70-25 Use of Volunteers as Subjects of Research
- AR 340-21 Army Privacy Program (superseded by AR 25-55)
- AR 570-4 Manpower Management
- AR 6-8-104 Military Personnel Information Management/Records
- AR 600-46 Attitude and Opinion Survey Program
- AR 611-3 Army occupational Survey Program
- DA Pam 600-8 Military Personnel Management and Administrative Procedures
- ARI 70-26 Data Collection Instrument Review Policy
- ARI 70-30 Data Sharing
- ARI 70-31 DRAFT – Data Documentation and Archival Policy
- 5 CFR 1320 Controlling Paperwork Burdens on the Public
- AFI 36-2601 Air Force Personnel Survey Program
- OPNAV 5300.8B Coordination and Control of Personnel Surveys

Document Review Results

The documents were cross-referenced for applicability and to insure compliance with current Army policy. AR 600-46 was reviewed to determine the regulation's relevancy and its

appropriateness to current ARI requirements and practices. Army regulations were also compared with the corresponding Air Force regulations and Navy instructions.

The published version of AR 600-46, with its interim changes, was found to be outdated and inaccurate. The format was inconsistent with more recently published regulations. The regulation placed authorities and responsibilities on organizations that were eliminated or renamed as a result of the organizational realignment of the Army. In addition, the regulation was found to not adequately reflect ARI's current requirements and practices.

We also compared Army, Air Force and Navy regulations for the control and management of attitude and opinion surveys. Highlights of that comparison are outlined in Table 1.

TABLE 1. MILITARY SERVICES COMPARISONS

ARMY	NAVY	AIR FORCE
<p>AR 600-46 Attitude and Opinion Survey Program</p> <p>Applicable to attitude and opinion surveys conducted among military and civilian Army personnel</p> <ul style="list-style-type: none"> • Recurring Surveys: SSMP, SOC, CCS • Special/One Time Surveys • Surveys of Army Families • Surveys of New Recruits <p><u>Excludes:</u> Army Occupational Program (AR 611-3); surveys conducted or approved by OASD or USGAO; surveys conducted within a MACOM or lower level of command</p>	<p>OPNAV 5300.8B Coordination and Control of Personnel Surveys</p> <p>Applicable to all surveys of DON military members, families and civilians</p> <ul style="list-style-type: none"> • Personnel Surveys & Interviews • Attitude, Opinion, Belief, & Fact Finding Surveys • Career development surveys • Program evaluation surveys • Recurring surveys <p><u>Excludes:</u> Navy Occupational Task Analysis; focus groups; interviews to develop and pretest survey questionnaires, surveys conducted by commanders in echelon 4 or lower when executed entirely within the command</p>	<p>AFI 36-2601 Air Force Personnel Survey Program</p> <p>Applicable to all Air Force</p> <ul style="list-style-type: none"> • Surveys • Attitude and Opinion Polls • Questionnaires • Telephone Interviews <p><u>Excludes:</u> Occupational Analysis Surveys (AFI 36-2623); internal reporting requirements; surveys of course graduates when the purpose is to ask about the course; surveys conducted by commanders on a single base which covers only aspects of base activities the commander has authority to change.</p>

The results of Gallup's qualitative and quantitative data analysis and the resulting findings and recommendations were also considered during the regulation review. The following items are not addressed in the published regulation:

- Standardized pretesting of survey questions
- Guidelines for providing deliverables to survey sponsors
- Requirements for the archiving of survey results
- Guidelines or instructions for the release of survey findings

Recommendations

Appendix C provides a draft revision of AR 600-46. Because of major changes in the language used, and the content of this revision, no attempt has been made to reference or highlight changes from the previous regulation. Input was solicited from ARI staff during the revision of the regulation. The draft revision incorporates ARI's current practices, appropriate references to Army agencies and regulations, and the initial Gallup recommendations.

Currently the only guidelines on the release of survey data are those identified below. The existing law generally requires that federal agencies release any information that is specifically identified and requested under terms of the Freedom of Information Act. In accordance with the published regulation, ARI has honored the stated requests of survey sponsors (including the sponsors of survey items included in the *Sample Survey of Military Personnel*) concerning the release of data. The options for the survey sponsors are:

- To release data to any requesters or media;
- To release data to requesters/media other than those specified for exclusion (with the reasons for exclusion to be specified);
- To not release data to anyone.

Army commands or agencies and DoD agencies are the most frequent requesters of data. In addition, the news media (such as the *New York Times*, *U.S. News and World Report*, and the Knight-Ridder news service) request and receive data summaries and data files. Survey findings are valuable, and to increase their value the information should be shared with Army Commanders; still, in some cases, it may be desirable to exempt some information from release to the media or even other military organizations.

In addition, Gallup requested specific guidance from the Senior Army Staff on release of survey data, which was incorporated into the draft Army and ARI regulations.

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APPENDIX A



Task 1: Review of ARI Surveys

Name	Researcher	Mode	Response Rate	N size
Continuing Surveys				
Sample Survey of Military Personnel	Morris Peterson	Local, direct mail	50%	17000
Survey of Officer Careers	June Jones	Direct mail	52%	7700/ 3500
Command Climate Survey	Morris Peterson	Paper or electronic, distrib. by commander	unknown	census
Special Surveys				
Survey of Army Families	Morris Peterson	Direct mail	45%	33000
OER	Morris Peterson	Direct mail	50%	~400/rank
Survey of New Recruit Values	Ron Tiggie	Distributed to groups	not known yet	6000
Occupational Analysis				
Occupational Analysis	Darrell Worstein	Disk by mail	45-55%	based on MOS



Current Methods Used: Continuing

Surveys

Sample Survey of Military Personnel

(SSMP)

Survey of Officer Careers

(SOC)

1. Main sample frame is list maintained by installations. Direct mail sample comes from the Army Officer and Enlisted Master Files, which are addresses not kept completely up to date.
 2. Request sent out to offices for SSMP items. Either borrow items, recycle items, or write and pretest new items (3-4 focus groups). Burden: 40-45 minutes.
 3. Army-wide sample of 10% of officers and 2-3% of enlisted personnel. Send out approx. 17,000 surveys. Stratified by rank and geographic location
 4. Paper scannable surveys are mailed to each installation, they sample based on last digit of SSN and distribute surveys. For Europe and Korea, surveys are sent by direct mail. Send a postcard reminder. Response rate: 50%.
 5. Use SPSS. Look to make sure rank is entered, clean, edit, weight, and code.
 6. General summary for each topic. Report percentages.
1. TOPMIS is not always updated with home addresses of officers.
 2. Most questions come from LROC or other surveys. Pretest entire instrument. Burden: 40-45 minutes.
 3. About 7,700 in cross-sectional sample and 3,500 in longitudinal sample. Sample white males, and do a census of black women, white women, and black males. Stratify cross-sectional by rank, race, source of commission, and gender.
 4. Paper scannable surveys are sent by direct mail. Send a postcard reminder. Response rate: 52%.
 5. Use SPSS. Look to make sure rank is entered, clean, edit, weight, and code.
 6. Do separate analyses for longitudinal and cross-sectional.



Current Methods Used: Continuing Surveys

Command Climate Survey (CCS)

1. No problems with frame, since each Commander knows who is in his/her unit.
2. All items come from other surveys so individual items not tested.
Commanders can add own questions, but are not asked to pretest them.
Burden: 6-10 minutes
3. Census of all soldiers in a unit. No stratification.
4. Commander can distribute it electronically or on paper. Up to Commander to decide best way to get cooperation. Unit members are prenotified and given only 1 opportunity to complete it. Response rate not known since data is kept at commander level
5. Use Raosoft to design questionnaire, collect and analyze data.
6. Raosoft generates crosstabs, and simple charts and graphs.



Current Methods Used:

Special Surveys

Survey of Army Families (SAF)

1. Sample comes from the Army Officer and Enlisted Master File, which is not kept completely up to date on marital status. DEERS is another option for frame.
2. Certain questions appear on all SAF, but also put in new questions each time. Pretesting depends on number of new items. Burden: 20-24 pages
3. Base sample of 20,000 plus oversample of 11,000 in Europe and male spouses. Stratified by rank and gender.
4. Paper scannable survey sent by direct mail to home address. Prenotification has been used in past cycles. Will use reminder letter, 800 number, and e-mail. Response rate: 45% in 1995.
5. Use SPSS. Look to make sure rank is entered, clean, edit, weight, and code.
6. Provide charts and tables for customers.

Survey of New Recruit Values

(SNRV)

1. Frame is active new recruits. Get a list from all 6 reception battalions. No problems
2. Borrowed items from values literature. Completely new survey, so pretested it with 40 new recruits. Also pretested vignettes with researchers. Burden: 30 minutes
3. Census of all new recruits entering reception battalion at a point in time.
4. Paper survey administered in group setting. Only have 1 chance to fill it out. Expect a response rate near 100% since it is an assigned activity for new recruits.
5. Use SPSS. Data cleaning and editing will be done by contractor.
6. Will present findings to DCSPER, and will do factor analysis and tests of scale reliability.



Current Methods Used: Special Surveys

Officer Evaluation Report (OER)

1. Frame is Commissioned officers, 2LT through COL. Easy to get the frame.
2. Pretesting is done locally for new items. Most items have been used in other surveys. Burden: 15-20 minutes.
3. 350-450 officers per rank. Stratified by rank.
4. Scannable answer sheet and 1 page questionnaire sent by direct mail to Officer's home address using Officer Master File. Expected 65% response rate, got 50%.
5. Use SPSS. Do a quick review of answer sheets to spot problems or inconsistencies. Customer coded the comments.
6. Customer did own report and briefing. Provided the frequencies and crosstabulations.



Current Methods Used

“Top of the Line” Surveys

General Social Survey

1. Frame is adults (Census definition) in American households. Some respondents are difficult to find for reinterview. Linking rule used for new construction.
2. Pilot tested 6 months prior to rollout. Cognitive pretesting done. Many of the items are recurrent across administrations. Burden: 90 minutes.
3. 3000 interviews with stratified and clustered area probability design.
4. Personal interviews filled out with paper and pencil. Achieves a 77-78% response rate.
5. Use SAS with SPSS dictionary.
6. The reporting may be methodological or substantive as the study is used for a wide range of research purposes.

National Election Studies

1. Survey targets eligible U.S. voters. Panel component may include movers, households that are difficult to find in-person. Linking for new households is necessary.
2. Large pilot studies conducted in intervening years. Many items are retained from prior surveys. Burden: 70 minutes.
3. 1750 persons are interviewed prior to the election and 1490 are interviewed afterward. It is a stratified and clustered area probability design.
4. Computer Assisted Personal Interviews (CAPI) in pre-election, CATI used in post-election. Response rate is low 70's.
5. Both SAS and SPSS are made available.
6. Time-series and top-line reporting is done. The research ultimately spawns a number of complex analyses.



Current Methods Used Occupational Analyses

Office of Comptroller of Currency Occupational Analysis of Bank Examiner Telecommunications Firm

*Analogous to Occupational Analysis under Darrell
Worstein*

1. Entry-level and mid-level bank examiners were to be target. Few entry-level personnel, highly mobile group, necessary data not readily accessible.
2. Some pilot testing. Two surveys. Burden: 1 hour each.
3. 600 examiners interviewed for each survey.
4. Survey conducted via intranet over two week field period. Respondents were prenotified with an e-mail and sent an auto-reminder if they did not respond in a fixed amount of time. Sixty-seven percent response rate anticipated.
5. Use SPSS.
6. Reports will contain descriptives with standard errors and reliability measures.

*Analogous to Occupational Analysis under Darrell
Worstein*

1. Targeted All employees in hourly or salaried nonexempt positions in the firm. Job titles were outdated and applied inconsistently.
2. Expert reviews and pilot testing done. Large task of converting 5,000 job titles to 400 job groups. Burden: averaged 60 minutes with high variability.
3. 4677 incumbents and 596 supervisors were interviewed. Stratification was done by job group.
4. Paper and pencil distributed to incumbents. Supervisors responded by mail. The response rate was about 50%.
5. Use SPSS.
6. Several reports were generated providing definitions, profiles, and interrater reliabilities.



APPENDIX B

Task 2: Survey of the Field

Name	Researching Organization	Mode(s)	Response Rate	N size
Air Force Personnel Survey Program	U. S. Air Force	Mail, Web, e-mail, CATI	50% (Mail)	Varies
Gallup Poll	Gallup	CATI	25-50% Depending upon the field period	1000+
Gallup Workplace Audit	Gallup	Mail, TDE, VRE, e-mail, disk-by-mail, web	75% average	Full Census
General Social Survey	NORC	PAPI	77-78%	3000 cases
Harris Poll	Harris Black International	CATI	40-50%	1000+
National Election Studies	University of Michigan	CAPI and CATI	Low 70/s	1750 (pre) 1490 (post)
Navy-Wide Personnel Survey	U. S. Navy	Currently mail, moving to network	50-75%	20,000
Occupational Analysis of a Telecommunications Firm	PDRI	Mail and written SAQ's	50%	5300
Organizational Climate in Federal Statistical Agencies	University of Maryland	Mail and e-mail	68% mail 37% e-mail	Roughly 10,000
Office of the Comptroller of Currency Bank Examiner	PDRI	Intranet	67% anticipated	600 x 2
Youth Attitude Tracking Survey	U.S. Dept. of Defense	CATI	Screeners 60%, Survey - Upper 70's	10,000



Current Methods Used

Military surveys

Air Force Personnel Survey Program

1. Air Force Personnel and civilian employees. Personnel records are updated monthly. Overseas personnel often omitted.
2. Use of standard scales and items from previous surveys done. Pretesting done by customer request. Burden: 20-30 minutes maximum.
3. Sample sizes vary. Stratification commonly done by status as officer, enlisted personnel, or civilian employee.
4. Multiple modes used including CATI, mail, e-mail and web. Response rates in mail surveys 50% w/o prenotification.
5. SAS predominates.
6. Briefings, narratives, multivariate statistical analyses, dependent upon client need.

Navy-Wide Personnel Survey

Analogous to SSMP

1. Annual survey of Navy personnel. Records are up-to-date, however difficulty is encountered reaching personnel at sea. Hope to address with web designs.
2. Pretests with initial instrument but instrument is essentially the same as the first (8-10 years/administrations). Burden: 150 items.
3. 20,000 naval personnel included. Some stratification by rank.
4. Mail questionnaire distributed by commanding officers. Anticipate moving to network administration. No prenotification, 6 month field period. Return rates between 50-75%.
5. Use SPSS.
6. Management report, trend analysis, and cross-tab tables.



Current Methods Used

Military surveys

Youth Attitude Tracking

Survey

Somewhat Analogous to SNRV

1. Seek to interview nonmilitary noninstitutionalized persons aged 16-24. Population is hard to locate. Linking rule is necessary with parents to include nonhousehold youth.
2. Cognitive lab and CATI testing done prior to administration. Questions are retained from prior surveys. Burden: 30 minutes.
3. 10,000 military-aged youth are surveyed. No stratification prior to sampling.
4. CATI survey collects data over 12 week field period. Sixty percent response rate to screener and Survey response rate is in the upper 70's.
5. SPSS for the Army and Navy and SAS for Rand and Air Force.
6. Branches conduct their own analyses.



Current Methods Used

Polling organizations

Harris Poll

1. The target population is the non-institutionalized adult population aged 18 and over in contiguous 48 states. Telephone households only.
2. Not typically pretested but many items come from previous surveys. Burden: 20-25 minutes.
3. 1000+ cases collected using list-assisted RDD. Regionally stratified prior to sampling.
4. CATI survey with field period usually between 3 to 5 days. Response rates vary from 40-50%.
5. QUANTUM used for cross-tabs. SPSS also used.
6. Usually descriptive but more complex possible depending on client need.

Gallup Poll

1. Targets American non-institutionalized adult population (18+) in contiguous 48 states. Telephone households only.
2. Many items used from prior surveys to monitor trends, the poll itself can be used as testing ground for items. Burden: Less than 20 minutes.
3. 1000+ surveys collected using list-assisted RDD. Regionally stratified prior to sampling.
4. CATI survey with field period varying from 1 night to 3 weeks. Response rates vary from 25-50%.
5. MENTOR used for cross-tabulations and top-line reporting. SAS and SPSS for more intensive analyses.
6. Usually top-line reports are released, but trending and analytical reporting often done as well.



Current Methods Used Organizational Climate Surveys

Gallup Workplace Audit

Analogous to CCS

1. Employee survey. Frames usually limited to employee records kept by firms which can often be poor.
2. Pilot testing is standard to increase buy-in and test technology. Historically predictive, core items used to compare within and across industries Burden: Less than 20 minutes encouraged, 30-60 minutes maximum.
3. Whenever possible a full census is taken.
4. Usually self-administered, a variety of modes may be used. Usually want at least 3 different types of prenotification. Average response rates are about 75%.
5. SAS, SPSS, MENTOR. Automatic Report Generation often done.
6. Usually descriptive. May do driver analyses w/ linking to business outcomes.

Organizational Climate in Federal Statistical Agencies

Analogous to CCS

1. Employee records for employees at all levels of Federal Statistical Agencies were used. Each agency kept its own records, many were out of date.
2. Both cognitive and field pretests were conducted. Standard scales were used and many items were lifted from prior surveys. Burden: 30 minutes.
3. Census of all agencies excluding interviewers for the Census Bureau.
4. Mail & e-mail, larger agencies used both. Prenotification and follow-up methods as prescribed by Dillman's Total Design Method. Response rates were much higher for mail.
5. SAS and SPSS versions made available.
6. Agencies conducted their own.



Survey of the Field - Findings

- Many of the problems faced are similar to those faced by ARI.
 - Regardless of type of organization, all adhere to regulations with regard to collection and release of data.
 - Response rates are declining in surveys. Increased efforts are employed to combat this tendency.
 - Delivery of analytic data set is common way to allow customer to extract maximum information from data.
- These surveys use methods worthy of consideration by ARI.
 - Pretesting is common.
 - On-call teams and streamlined approval processes can speed design, administration and dissemination.
 - Customer feedback is usually invited in these studies.
 - Computerized methods are widely adopted.

APPENDIX C

DRAFT AR 600-46

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References

Glossary

Chapter 1 Introduction

**DRAFT
AR 600-46**

1-1. Purpose

This regulation---

- a. Establishes policy, guidelines, procedures, definitions, and assigns responsibilities for authorization and coordination of personnel surveys conducted of Army personnel.
- b. Establishes administrative procedures and assigns responsibilities in support of the following Army personnel survey programs conducted by the Army Research Institute (ARI)
 - (1) Sample Survey Program: RCS: MILPC-3.
 - (2) Special Army Personnel Surveys: RCS: MILPC-100.

1-2. References

Required and related publications are listed in appendix A.

1-3. Explanation of abbreviations and terms

Abbreviations and special terms used in this regulation are explained in the glossary.

Chapter 2

Survey Authorization and Coordination

2-1. Purpose

Authorization and coordination of Army personnel surveys will facilitate--

- a. Linkages among Army personnel proponents, including information on surveys being planned and conducted.
- b. Use of high quality survey design and methods to meet the information needs of the survey sponsor and the Army.
- c. Collection of high quality data.
- d. Avoidance of duplication of data collection efforts.
- e. Control of respondent burden.
- f. Use of efficient field administration procedures.
- g. Achievement of high response rates.
- h. Protection of respondent anonymity and privacy.
- i. Avoidance of inappropriate topics and questions
- i. Efficient use of available resources.

2-2. Applicability

- a. This chapter pertains to personnel surveys conducted among U.S. Army Active Duty and Reserve Component including the Army National Guard, Army retirees, and Department of the Army civilian employees, except those authorized and distributed by the following:
 - (1) Office of the Assistant Secretary of Defense (Force Management and Personnel).
 - (2) U.S. General Accounting Office.
 - (3) U.S. Office of Personnel Management and Merit System Protection Board (for surveys conducted of civilian employees only).
 - (4) U.S. Army Civilian Personnel Evaluation Agency.
- b. This chapter also pertains to surveys of dependent family members of Army Active Duty personnel, when the purpose is to determine the effectiveness of existing Federal programs related to Army families and the need for new programs.
- c. This chapter does not apply to data collection activities to obtain factual information. Factual information is--
 - (1) Information defined by the Code of Federal Regulations, 5 CFR 1320.7(k), such as facts and opinions obtained in connection with medical examinations and treatment, and examinations designed to test the aptitudes, abilities, and knowledge of persons. Studies collecting personal data of this type should be approved in accordance with AR 340-21 and AR 70-25.
 - (2) Information already being regularly collected and reported on Government forms, such as Standard Forms, Department of Defense Forms, and Department of the Army Forms.

2-3. Responsibilities

- a. The Deputy Chief of Staff for Personnel (DCSPER) will establish broad policies concerning personnel survey activities throughout the Army.
- b. The Commanding General, PERSCOM, will exercise overall management responsibility for the Army Personnel Survey Program.

c. The Director ARI, will:

- (1) Establish procedures to manage the Army Personnel Survey Program, in accordance with 2-5.
- (2) Provide for the liaison with and participation personnel surveys originated by the Office of the Secretary of Defense and other Department of Defense (DoD) components.
- (3) Provide for the liaison with and participation in personnel surveys originated by the Office of the Secretary of Defense and other Department of Defense components.

d. Headquarters, Department of the Army (HQDA) agencies and their field operating agencies, Army agencies, MACOMs, installations and their satellite units, and U.S. Army elements of DoD agencies and joint activities will:

- (1) Establish procedures consistent with this chapter for authorization and coordination of Army personnel surveys conducted only within the command, agency, or installation.
- (2) Submit survey requests to ARI for authorization of Army surveys that will be conducted outside the requesting command, agency, or installation, in accordance with paragraph 2-5.
- (3) Ensure that only authorized personnel surveys are conducted within the command, agency, or installation, in accordance with paragraph 2-5.
- (4) Place on hold and inform ARI of any survey believed not authorized in accordance with this regulation.
- (5) Upon request, provide ARI with information on surveys conducted or planned within the command, agency, or installation.
- (6) As requested by the Director, ARI will assist in data collection associated with DA-approved surveys by providing administrative, logistical, and automated data processing support.

2-4. Army Sponsorship of Surveys

- a. A survey of Army personnel about Army matters must have an Army agency as a sponsor.
- b. Sponsorship of a survey of Army personnel is reserved for the activity proponent who is the primary subject of the survey. Coordination among the appropriate Army sponsors is required when a survey addresses in depth two or more primary subjects.
- c. Army sponsors of non-Army-initiated or private surveys of Army personnel are responsible for ensuring that the requirements of this chapter are met.

2-5. Authorization Procedures

- a. Surveys conducted within a single command will be authorized by the commander, in accordance with paragraphs 2-5.d.(1) and chapter 4.
- b. Authorization from ARI is required for surveys conducted among personnel from two or more Army components, major commands (MACOMs) or regions.
 - (1) The *Request for Authorization to Survey Department of the Army Personnel* form will be prepared in accordance with figure 2-1 and submitted to the Commander, ARI.
 - (2) ARI will conduct a technical review addressing the following--
 - (a) Clear statement of need for the information and how it will be used to benefit the Army
 - (b) Extent that the request meets the purposes identified in paragraph 2-1.
 - (a) Extent the proposed methods, procedures, and techniques conform to U.S. Federal guidelines for statistical activities.
 - (3) Adequacy of the proposed survey design, methodology, procedures, techniques, the survey data collection instrument(s), including questionnaire and survey item pre-testing

procedures, and any additional materials, data collection activities, and analysis plans to achieve the purposes of the survey.

- (4) ARI will consult with the survey sponsor on the results of the review within 15 working days after receipt of the request. Any required changes will be identified. Depending on available resources, ARI may provide the survey sponsor with assistance in making the necessary changes.
- (5) As the approving authority, ARI will authorize a survey by assigning a survey control number (SCN) and requirement control symbol (RCS). For printed or computer-assisted survey data collection instruments, the authorizing information will be displayed at the top of the cover page, first page, or initial screen. For telephone or personal interview surveys, the authorizing information will be cited by the interviewer prior to the interview.
- c. Small-scale pretests of draft survey items and/or data collection instruments do not require authorization if conducted with fewer than 50.
- d. Authorization is not required for semistructured group discussion interviews (focus groups). The group discussion interview is encouraged because it is an effective method for identifying the range of issues concerning a topic, developing survey items, reviewing drafts of data collection instruments, and addressing other study purposes.
- e. Information releases on survey results are controlled by the survey sponsor and, if applicable, are governed by AR 25-55 and AR 340-21.

2-6 Surveys of General Officers and Senior Executive Service (SES)

- a. Usually, general officers and members of the senior executive service are not included in the samples drawn for surveys of Army personnel.
- b. The General Officer Management Office will review all surveys proposed for general officers.
- c. The Senior Executive Service Office will review all surveys proposed for SES-level Staff

2-7 Unauthorized Army Surveys

- a. Surveys not approved in accordance with this regulation are not authorized for distribution on Army installations or in Army workplaces.
- b. Distribution of unauthorized surveys will be reported to the installation commander and ARI.
 - (1) Responses by Army personnel to unauthorized surveys will—
 - (2) Not be made while on duty.
 - (3) Not be derived from performance of official duties or based on sensitive or classified information.
- c. Not be considered as official responses from Army personnel or reports about the Army.

2-8 Responses by individuals to private surveys

Responses by Army personnel to private surveys addressed to them as private individuals without official Army affiliation will neither be encouraged nor discouraged.

Chapter 3

Army Survey Programs

3-1. Sample Survey Program (SSP)

- a. Definition. The SSP is the Army-wide program for systematic collection of information on the attitudes, opinions, perceptions, behaviors, and characteristics of U.S. Army Active Duty and Reserve Components, including the Army National Guard, Department of the Army civilian employees, and the dependent family members of Active Duty personnel.
- b. Objectives.- the SSP provides--
 - (1) Resources to conduct the Sample Survey of Military Personnel for the Active Duty personnel and the Survey on Officer Careers.
 - (2) TAS and support, as needed, for surveys sponsored by Army agencies.
 - (3) Services to conduct special surveys, upon request and provision of resources by the sponsoring Army agency.
 - (4) Information about and from surveys being conducted of Army personnel.
- c. Elements and procedures for SSP are described in chapters 4, 5, and 6.

3-2. Responsibilities

For the SSP--

- a. The DCSPER will establish broad policies concerning personnel survey activities throughout the Army.
- b. HQDA agencies and their field operating agencies, Army agencies, MACOMs, installations and their satellite units, U.S. Army elements of DOD agencies and joint activities, and the civilian personnel offices serving these agencies--
 - (1) Appoint a staff officer (commissioned or warrant) or DA civilian employee of comparable grade to serve as the personnel survey control officer (PSCO)
 - (2) Serve as data collection activities for the SSMP and for special surveys that require distribution assistance at the local level. The activities include--
 - (a) Assist in data collection for SSP surveys, including surveys of both military and civilian personnel, by providing administrative, logistic, and automated processing support, as required.
 - (b) Ensure that personnel survey data collection responsibilities are performed by personnel service centers and their satellites in accordance with AR 600-8-104 and a memorandum of instruction and by civilian personnel offices in accordance with a memorandum of instruction.
 - (c) When requested, complete and return DA Form 2000.
- c. The Command will:
 - (1) Provide access to and products from the Total Officer Personnel Management Information System (TOPMIS), Enlisted Distribution and Assignment System (EDAS), and other similar personnel and organization files necessary for planning and conducting personnel surveys and responding to information requests from Army Staff agencies.
 - (2) Provide TAS on matters related to the information contained in personnel files maintained in data bases.

Chapter 4

Personnel Survey Control Officer (PSCO)

4-1 Responsibilities

The PSCO is part of an Army-wide personnel survey network responsible for administration of surveys that are conducted within the command or installation for the Sample Survey Program.

4-2 MACOM PSCO

The MACOM PSCO will implement command procedures (consistent with chapter 2) for authorization of surveys conducted only within the command.

4-3. Installation or agency and major subordinate command PSCO.

- a. The installation or agency PSCO will serve as the POC for personnel surveys conducted throughout the installation or agency and satellite units.
- b. The major subordinate command PSCO will provide assistance to the installation or agency PSCO to ensure efficient management of surveys.
- c. The installation or agency and major subordinate command PSCO will--
 - (1) Implement command procedures for authorization of surveys conducted only within the installation or major subordinate command.
 - (2) Arrange and monitor, as needed, administration of surveys conducted under the SSP.
 - (a) Ensure responsiveness to the SSP survey requirements and suspense dates.
 - (b) Be authorized direct contact with ARI, as required, to conduct surveys efficiently and effectively.
 - (c) Provide assistance locally, as required, when SSP surveys are being sent through distribution directly to Army personnel.
 - (3) Upon request use command media and other activities to encourage participation in the OSP and SSP surveys.
- (4) Protect the anonymity of respondents by ensuring that individual responses are handled only by persons officially involved in the administration and processing of the survey. Data will not be extracted from the responses at the installation or MACOM level prior to shipment to ARI.
- (5) Upon request by ARI, arrange personnel survey pretests and response verification or quality control checks.
- (6) Upon request, provide ARI with materials related to surveys being conducted within the command or at the installation.

Chapter 5

Sample Survey Program (SSP) Elements and Procedures

5-1 SSP Mission

In support of the Army Personnel Survey Program, the SSP has the following mission:

- a. Authorize and coordinate surveys conducted in two or more MACOMs (Chapter 2).
- b. Conduct the following surveys:
 - (1). Sample Survey of Military Personnel
 - (2). Survey on Officer Careers
 - (3). Special Surveys
- c. Provide TAS on conducting surveys and studies and provide information on surveys

5-2. Sample Surveys

- a. ARI conducts Army-wide, omnibus sample surveys to accommodate personnel proponents and other Army agencies whose information needs do not require or justify separate survey efforts.
- b. Use of omnibus sample surveys reduces the number of surveys as well as the respondent burden for Army personnel.
- c. ARI will—
 - (1) Prepare the data file
 - (2) Conduct analyses in accordance with a basic plan developed with the proponents of the items
 - (3) Prepare data tables
 - (4) Analyze the data
 - (5) Write a report of the findings containing components standard in the survey research industry.

5-3. Technical Advisory Service (TAS)

- a. ARI provides TAS in survey methodology and procedures to Army sponsors of personnel surveys. TAS also may be provided to other Army and DOD components planning to conduct surveys or other studies of Army personnel.
- b. TAS may be provided for survey methods and procedures in the areas such as--
 - (1) Survey design.
 - (2) Sampling.
 - (3) Item construction.
 - (4) Survey data collection instrument construction.
 - (5) Pretesting.
 - (6) Data collection methods and procedures.
 - (7) Survey administration.
 - (8) Data reduction.
 - (9) Data analysis.
 - (10) Statistical report writing.
- c. Sponsors of surveys of Army personnel are encouraged to establish working relationships early with ARI to ensure that requests for survey coordination and authorization meet all requirements of both the sponsor and ARI.

5-4 Data File Documentation and Archive

- a. The purpose of data file documentation and the archiving of research data is to preserve existing research data files, in a central location, that may prove useful for future research.
- b. Data files will be documented and archived by the Army Research Institute.
- c. Archived data is for internal use only and will be used to support research activities.

5-5. Release of Information

- a. ARI provides information about surveys, which have been conducted, are being conducted, or are planned.
- b. Survey data and reports will be released by the survey sponsor and, if applicable, are governed by AR 25-55 and AR 340-21).

Chapter 6

Special Surveys

6.1. Requests to conduct special surveys

Upon formal request and provision of required resources, ARI will conduct a separate, special survey or provide the TAS necessary for conducting a survey of Army personnel (see the listing of TAS areas in para 6-3.b.).

REFERENCES

Section I Required Publications

AR 25-55

The Department of the Army Freedom of Information Act Program

AR 70-25

Use of Volunteers as Subjects of Research. (Cited in para 2-2.)

AR 340-21

The Army Privacy Program. (Cited in paras 2-2 and 2-4.)

AR 600-8-104

MILPER Information Management. (Cited in paras 3-3 and 5-3.)

Section II Related Publications

A related publication is merely a source of additional information. The user does not have to read it to understand this regulation.

DODI 1100.13

Surveys of Department of Defense Personnel

AR 5-4

Probability Sampling for Surveys of Estimates

AR 25-400-2

The Modern Army Record Keeping System (MARKS)

AR 340-3

Official Mail

AR 340-5

Correspondence Distribution Management

AR 600-3

The Army Specialty Proponent System

AR 611-3

Army Occupational Survey Program

AR 600-200

Enlisted Personnel Management System

AR 611-1

Military Occupational Classification Structure Development and Implementation

AR 611-101

Commissioned Officer Classification System

AR 611-112

Manual of Warrant Officer Military Occupational Specialties

AR 611-201

Enlisted Career Management Fields and Military Occupational Specialties

AR 614-100

Officer Assignment Policies, Details and Transfers

DA Pam 325-5

Federal Statistical Standards

5 CFR 1320

Controlling Paperwork Burdens on the Public

GLOSSARY

Section I Abbreviations

ADP

Automatic data processing

CFR

U.S. Code of Federal Regulations

DA

Department of the Army

DCSPER

Deputy Chief of Staff for Personnel

DOD

Department of Defense

FY

Fiscal year

HQDA

Headquarters, Department of the Army

MACOM

Major Army command

OCONUS

Outside continental United States

ODCSPER

Office, Deputy Chief of Staff for Personnel

OSD

Office of the Secretary of Defense

OSP

Occupational Survey Program

PSC

Personnel service center

PSCO

Personnel survey control officer

RCS

Requirement control symbol

SCN

Survey control number

SSMP

Sample Survey of Military Personnel

SSP

Sample Survey Program

TAS

Technical advisory service

GLOSSARY**Section II****Terms****Answer sheet/form**

A DA form for recording survey responses. The Army Survey Personnel Program usually uses answer sheets or forms, which are optically scanned to produce the database for a survey.

Army personnel

For the purposes of this regulation, "Army personnel" includes soldiers serving on active duty with the Army, members of the Army Reserve, retired members of the Army, and DA civilian employees. (Dependent family members of the above-referenced personnel are included as Army personnel in accordance with Section 804, Public Law 100-145.)

Attitude and opinion survey

A formal survey on the attitudes, opinions, behaviors, and knowledge of people concerning general and specific issues, activities, and objects. The term may be used to indicate that the Army personnel survey is not an occupational survey.

Attitudes and opinions

An attitude is a general orientation to a patterned way of thinking about something. An attitude leads to an opinion on a specific aspect of something.

Authorized survey.

A survey that has been assigned an SCN in accordance with this regulation or by DOD or the U.S. Office of Management and Budget. A survey conducted in two or more MACOMs must have an SCN assigned by ARI.

Behaviors

Activities or actions performed by people.

Computer-assisted telephone interviewing

A telephone interview survey which uses a computer software program to assist the interviewer in recording responses and asking questions in an appropriate sequence.

Data analysis

Use of statistical procedures for reporting aggregate responses to a survey.

Data collection agency

MACOMs or activities responsible for collecting job-related information from soldiers within their areas of jurisdiction whom are being surveyed under OSP or SSP.

Data reduction

Procedures for preparing for statistical analyses the responses to questions from a survey data collection instrument.

Data sheet

Worksheet, DA Form 3408 (OSP Data Sheet), containing TOE, TDA, ASI and authorization information pertaining to an enlisted MOS job incumbent.

DA survey master plan

The quarterly listing of surveys being conducted among Army personnel and sponsored at the MACOM or higher Army or DOD level.

Direct mail survey

Use of the U.S. Postal Service, small package shipper, and/or U.S. military mail as a means for distributing data collection instruments and other materials directly to respondents and for the direct return of completed materials to a central point.

Group administration

Completion of a self-administered data collection instrument in a group setting, with a survey administrator providing instructions on how to complete the data collection instrument and other information related to the survey. Completed data collection instruments are returned to the survey administrator.

Information

Any statement of fact or opinion, whether in numerical, graphic, or narrative form, and whether in oral or maintained on paper, magnetic tapes, or other media [5 CFR 1320.7(k)].

Justification for survey requests

Narrative statement describing the sponsor, purposes, and procedures planned for conducting a survey of Army personnel and the dependent family members of Active Duty soldiers. For Army personnel surveys conducted of personnel in two or more MACOMs, the request must be submitted to USAPIC. Some surveys also may have to be approved by the U.S. Office of Management and Budget.

Non-Army surveys

Surveys conducted among Army personnel by persons or organizations outside of the Army. Non-Army surveys must have an official Army sponsor in order to be considered for authorization and distribution.

Occupational survey

A survey of personnel on various aspects of their work to include tasks performed, and the skills, knowledge, and abilities necessary to do the work. This includes surveys that pertain to collection of various aspects of job training requirements (task criticality) as determined by supervisory and management personnel. Other unique factors may be collected in order to meet unique analysis requirements.

Personnel Survey Control Officer (PSCO)

The appointed individual at a MACOM, command, installation, or major satellite command who is responsible for receiving, distributing, accounting for, and returning Army personnel surveys.

Personal interview

Completions of a data collection instrument, using an interviewer to ask questions and record the answers of the respondent. It may be done face-to-face at the same location or by telephone.

Personnel survey

The collection of information from or about any population or group for the purpose of studying characteristics of the population or group.

Population

The specific group or type of people selected to participate in a survey. A population may comprise several specific subpopulations.

Pretest/pilot test

A test of survey procedures and a draft of items or the data collection instrument to determine their appropriateness. A pretest is conducted with a small number of people (usually from 10 to 50). Revisions of the planned procedures and data collection instrument are based on the findings of the pretest. Several pretests may be required.

Proponent

The official Army sponsor of an Army activity.

Questionnaire

A data collection instrument used by an interviewer and respondent or by a respondent alone during a personnel survey.

Reliability

In survey research, the likelihood that a question will be answered with the same response if asked again a short time later.

Requirement control symbol (RCS)

A symbol used by the Army to indicate that a specific data collection activity has been authorized.

Sample

A portion of a larger group of people. The portion is selected by some planned systematic method so that each person in the larger group has a known probability of being selected. When the probability of being selected is known, inferences can be made to the larger group based on the findings for the smaller group.

Sample design/sampling plan

Procedures established for selecting the population and subpopulations for a survey. The procedures take into account the number of persons in the total population being examined, the desired sampling error and confidence intervals required, and the expected response rates for each subpopulation.

Sample Survey of Military Personnel (SSMP)

The general-purpose, omnibus survey of Active Duty Army personnel conducted by USAPIC semiannually. It has been conducted regularly since it was first conducted in December 1943 as the Personnel Survey of the Army.

Subpopulation

The subset of a total population being studied. For example, officers, enlisted personnel, dependent family members of soldiers, and DA civilians are four basic subpopulations of the total Army population.

Survey

A general term used to describe the process of obtaining information systematically from a selected group of people through the use of a data collection instrument with similar questions and response categories. A survey asks identical question(s) of 10 or more persons.

Survey administration

A general term used to describe how a data collection instrument will be distributed to and completed by respondents and how the responses will be collected at a central processing point.

Survey control number (SCN)

Number assigned by USAPIC and placed on the front cover of a data collection instrument to indicate that the survey has been authorized distribution by the Army.

Survey coordination

Process by which the Army identifies surveys being conducted at the MACOM or higher level and uses the information to ensure effective and efficient use of soldier time and Army resources.

Survey design

Procedures planned for conducting all aspects of a survey, including, but not limited to, identification of purposes and specific information needs, sample design, data collection instrument construction, survey administration, data reduction, and data analysis.

Survey program

A coordinated, systematic collection of information by surveys of Army personnel to address the needs of personnel proponents and other agencies within the Army. It includes identification of information needs; survey design; survey administration; data reduction, processing, and analysis; and reporting the results.

Telephone survey

Completion of a data collection instrument through the use of a telephone to link the respondent with the interviewer. The interviewer records the answers provided by the respondents.

Validity

In survey research, the likelihood that the responses obtained are an accurate reflection of what actually exists in terms of the attitudes, opinions, behaviors, and knowledge being studied.

Figure 2-1
REQUEST FOR AUTHORIZATION TO SURVEY
DEPARTMENT OF THE ARMY PERSONNEL

THE ARMY SAMPLE SURVEY PROGRAM
(AR 600-XX)

TO: U.S. Army Research Institute for the
Behavioral and Social Sciences
ATTN: TAPC-ARI-PS
5001 Eisenhower Avenue
Alexandria, VA 22333-5600

Tel: DSN 667-7801/7802
Commercial (703) 617-7801/7802

Date Submitted:

(Instructions: Provide the following information.)

1. Name of sponsoring Army or DOD organization or office.
2. Point of contact.
3. Mailing address.
4. Telephone number, AUTOVON and commercial.
5. Recommended title of the survey.
6. Proposed schedule.
 - a. Completion of draft survey data collection instrument date.
 - b. Survey pretest dates.
 - c. Survey administration dates.
 - d. Data analysis dates.
 - e. Final report/briefing dates.
7. Justification of survey request.
 - a. Describe the general purpose of the survey.
 - b. List the specific objectives being addressed by the survey.
 - c. Describe how the survey results will be used.
8. Background research.
 - a. Describe the planning and coordination of the survey, with a focus on Army organizations/offices contacted.
 - b. Describe the most recent relevant research. Identify key publications, articles, and/or papers reviewed. Include both military and civilian sources
9. Target population
 - a. Describe the specific groups or subgroups of Army personnel to be surveyed.
 - b. Describe the reasons why the specific groups or subgroups have been selected.
10. Suggested sample size.
 - a. Estimate the total size of each group or subgroup.

- b. Estimate how many persons in each group or subgroup will be asked to participate in the survey.
- 11. Survey administration.
 - a. Identify the preferred method for data collection (how the data collection instrument will be distributed and how it will be administered).
 - b. Estimate the average time required by a respondent to complete the survey.
- 12. Data collection instrument and other survey materials. (Attach survey instrument, memorandums/letters, and other materials.)
- 13. Data analysis plan.
 - a. Describe how the data will be processed (hand-tabulated, PC software program, optically scanned, etc.).
 - b. Describe how the data will be analyzed (frequencies/percentages, cross-tabulations, or other statistical procedures).
- 14. Release of survey results by ARI. (Select one.)
 - a. Release to any Army requester/media
 - b. Release to only that requesters/media specified. (Specify.)
 - c. Release is not desired. (Give reasons.)

Figure 2-2
REQUEST FOR SURVEY ITEM APPROVAL
FOR SAMPLE SURVEY

THE ARMY SAMPLE SURVEY PROGRAM
(AR 600-XX)

TO: U.S. Army Research Institute for the
Behavioral and Social Sciences
ATTN: TAPC-ARI-PS
5001 Eisenhower Avenue
Alexandria, VA 22333-5600

Tel: DSN 667-7801/7802
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Date Submitted:

(Instructions: Provide the following information.)

1. Name of sponsoring Army or DOD organization or office.
2. Point of contact.
3. Mailing address
4. Telephone number, AUTOVON and commercial.
5. General topic addressed by requested items.
6. Justification of survey request.
 - a. Describe the general purpose of the survey items.
 - b. List the specific objectives being addressed by the items.
 - c. Describe how the results will be used.
7. Background research.
 - a. Describe the planning and coordination of survey items, with a focus on Army organizations/offices contacted.
 - b. Describe the most recent relevant research. Identify key publications, articles, and/or papers reviewed. Include both military and civilian sources.
8. Requested items. (Attach draft of proposed survey items.)
9. Special data analysis requirements.
 - a. Describe how the data should be analyzed in addition to reporting the results by paygrade groupings (such as by sex, marital status, CONUS/OCNUS location).
 - b. Indicate whether assistance in interpreting the results will be needed.
10. Release of survey results by ARI. (Select one.)
 - a. Release to any Army requester/media.
 - b. Release to only that requesters/media specified. (Specify.)
 - c. Release is not desired. (Give reasons.)